Engineering

Country of implementation of this project:	**In Europe**
Kind of Site:	**Greenfield**
Kind of steel Structure analyzed:	**Self-supporting Tower**
Horizontal section:	**Triangular**
Height (m):	**72**
Wind speed according TIA/EIA 222-G (km/h):	**130**
Steel of profiles in the Structure:	**ASTM A572Gr50**

Check of the legs in the Structure according TIA/EIA 222-G:

Structure part N°	Upper level [m]	Profile	Steel	Required Resistance [kN]	Resistance of design [kN]	Check
12	72,00	90x6	A572Gr50	97,31	175,41	OK
11	64,80	90x8	A572Gr50	224,90	231,13	OK
10	60,00	120x11	A572Gr50	300,71	433,20	OK
9	54,00	120x13	A572Gr50	407,67	505,58	OK
8	48,00	130x14	A572Gr50	503,36	606,68	OK
7	42,00	130x16	A572Gr50	594,79	686,48	OK
6	36,00	160x14	A572Gr50	684,80	796,84	OK
5	30,00	160x14	A572Gr50	774,35	796,84	OK
4	24,00	180x16	A572Gr50	864,64	1.043,87	OK
3	18,00	180x16	A572Gr50	955,30	1.043,87	OK
2	12,00	180x18	A572Gr50	1.057,71	1.095,61	OK
1	6,00	200x18	A572Gr50	1.122,58	1.257,62	OK

Distortions check:

Structure part N°	Level [m]	XY total Distortion [cm]	Allowable distortion [cm]	Check
72	0,00	6,37	36,00	OK
12	72,00	6,37	72,00	OK
12	72,00	6,37	72,00	OK
12	72,00	6,37	72,00	OK
10	60,00	0,06	60,00	OK
10	60,00	0,06	60,00	OK

NOTE: The information contained in this document does not correspond to a real situation, it corresponds to a simulation made by PRELOAD.